



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,205	09/09/2003	Narutoshi Fukuzawa	242335US0	9140

22850 7590 12/20/2005

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

ANGEBRANDT, MARTIN J

ART UNIT	PAPER NUMBER
----------	--------------

1756

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/657,205

Applicant(s)

FUKUZAWA ET AL.

Examiner

Martin J. Angebrannt

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/9/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 1756

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Morishima et al. JP 2001-232945.

Morishima et al. (machine translation enclosed) teach optical recording media comprising a polycarbonate substrate 0.6 mm thick, coated with the recording layer, a silver reflective layer and a UV cured protective layer. [0071] Examples 1,2,4 and 6 in table 2 which are either thiazole, oxazole or diazole terminal moieties. These are read and recorded using a 408 nm laser through the substrate. The addition of singlet oxygen quenchers to increase lightfastness is disclosed. [0052].

4. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Iwamura et al. JP 06-295469.

Art Unit: 1756

Iwamura et al. JP 06-295469 (machine translation enclosed) teach optical recording media comprising a polycarbonate substrate, coated with the recording layer, an Al reflective layer and a UV cured protective layer. [0032-0035] Comparative example 3 uses the dye of formula 8 in this in table 2 in place of the dye used in example 2. [0045-0047] These are read and recorded using a 488 nm laser through the substrate.

The recitation of the wavelength used is one of intended use, although the absorption (of the laser) by the dye must be present. The examiner notes that the absorption properties of the dyes are inherent. To address this line of rejection of other which use difference wavelengths for recording , the applicant may choose to recite particular groove pitches [prepub at [0030]] which would preclude the use of longer wavelengths with the media bounded by the claims.

5. Claims 1-5 and 7 are rejected under 35 U.S.C. 102(e) as being fully anticipated by Oyamada et al. WO 02/10298.

See example 2, which uses an oxazole dye together with a 405 nm laser irradiated from the side opposite the substrate (see figures 1-3.).

6. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being fully anticipated by JP 10-188339.

JP 10-188339 (machine translation attached) teach optical recording media comprising a polycarbonate substrate, coated with the recording layer, an Au reflective layer, a UV cured adhesive and a protective layer. [0039-0041] Comparative example 2 uses the dye of formula 5 in table 1 in place of the dye used in example. [0043-0046] These are read and recorded using a 635 nm laser through the substrate.

Art Unit: 1756

7. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tominaga et al. JP 10-168450, in view of Namba et al. '889.

Tominaga et al. JP 10-168450 (machine translation attached) teach example 3, the use of an oxazole dye on a substrate with a light stabilizer. [0047-0050].

Namba et al. '889 teaches various cyanine dyes, including trimethine cyanine dyes using linkage (L VIII) (col 9) with various terminal moieties, including I, V, XV and XI (col. 6-7). The addition of various singlet oxygen quenchers to improve stability is disclosed. (18/18-28/17). The use of protective layers is disclosed. (32/26-29 and 3/48-51)

It would have been obvious to one skilled in the art to modify example 3 of Tominaga et al. JP 10-168450 by providing a protective layer as is well known from Namba et al. '889 to provide protection from mechanical damage to the recording surface and the like.

8. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno et al. JP 2003-237240.

Ueno et al. JP 2003-237240 teach optical recording media comprising a substrate coated with a recording layer, a silver reflective layer and a protective layer [0076]. Dyes C-3, C-5, C-8 and C-12 are disclosed [0041-0042].

It would have been obvious to use other disclosed dyes, such as dyes C-3, C-5, C-8 and C-12, in place of those specifically used in the examples with a reasonable expectation of forming a useful optical recording medium based upon the disclosure of equivalence.

9. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over either of Saito et al. '261 or Berneth et al. '807, in view of Morishima et al. JP 2001-232945 and Sugita et al. JP 08-100011

Art Unit: 1756

Saito et al. '261 teach optical recording media read from the side opposite the substrate which increases the resolution (near field recording) [0007-0009]. The use of cyanine dyes in the recording layer is disclosed [0031, example 2]. The recording takes place between 360 and 460 nm with a high NA. [0066]. Example 2 uses a cyanine dye and was recorded on using a 405 nm laser from the light transmitting layer side [0068-0079]

Berneth et al. '807 teach optical recording media read from the side opposite the substrate which increases the resolution (near field recording) [0010-0011,0018]. The use of cyanine dyes in the recording layer is disclosed [0024]. The recording takes place between 360 and 460 nm with a high NA. [0018]. Embodiment 1 uses a trimethine cyanine dye and was recorded on using a 405 nm laser from the light transmitting layer side [0036,0040-0044,page 7]

Sugita et al. JP 08-100011 teach various trimethine cyanine dyes including dyes 2 and 3 and their absorption maxima as being below 500 nm, whereas other trimethine dyes 4 and 5 have absorption maxima of 550 and 568 nm [0026].

It would have been obvious to one of ordinary skill in the art to modify the examples of Saito et al. '261 or Berneth et al. '807 by using cyanine dyes such as those used in examples 1,2,4 and 6 in table 2 of Morishima et al. JP 2001-232945, which have absorption maxima nearer to the 405 nm lasers used as evidenced by Sugita et al. JP 08-100011, noting the direction to cyanine dyes within Saito et al. '261 and Berneth et al. '807 with a reasonable expectation of having high sensitivity to the laser. Further, it would have been obvious to record on the resulting media using lasers emitting in the 380-425 nm range, particularly 405 nm.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 1756

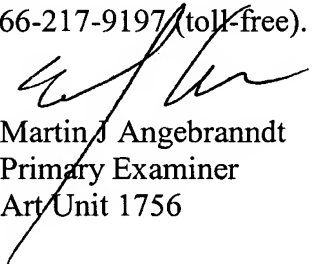
JP-03-146393 (page 3), JP 11-058973 (dyes I-81 to I-82), Miyadera et al. '899 (col 6) and JP 63-296986 (page3) teach trimethine oxazole dye based optical recording media.

JP 2003-246149 and JP 2000-043420 are cumulative to JP 2003-237240.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin J. Angebranndt whose telephone number is 571-272-1378. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Martin J. Angebranndt
Primary Examiner
Art Unit 1756

12/12/2005